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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/630,405

07/30/2003

Alexander E. Kalish

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90 Forest Avenue
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EXAMINER

PHAM, BRENDA H

ART UNIT

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2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/630,405	Applicant(s) KALISH, ALEXANDER E.	
	Examiner BRENDA PHAM	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 8-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are pending in the application.

Response to Arguments

2. Applicant's arguments filed 07/29/08 have been fully considered but they are not persuasive. Applicant argued in REMARK, page 7 that Backstrom does not teach configuring the given device such that in a particular mode of operation the master radio only transmits data and the one or more slave radios only receive data or the master radio only receives data and the one or more slave radios only transmit data...By contrast, nowhere does Backstrom teach (or even suggest) that any of the transceivers engage in other than bidirectional communication, in which the transceiver both transmits and receives data, much less the specific arrangement recited in claim 1.

Examiner respectfully disagrees because Backstrom indeed taught this arguable claimed feature.

As shows in FIG. 2 and TABLE 1 thru TABLE 7, "each transceiver device operates on a respectively different frequency, in three time slots, with each timeslot being allocated either to a traffic channel or to the digital control channel." Col. 2, lines 35-40.

Table 1 for example, shows a situation in which mobiles DVC1 and DVC2 are allocated to time slots 2 and 3 and timeslot 1 is allocated to DCC (digital control channel) respectively of TRX1; mobiles DVC3, DVC4 and DVC5 are allocated to time slots 1, 2 and 3 respectively of TRX2; and mobile DVC3 is allocated to time slot 1 of

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TRX3. The fourth transceiver VER/TRX4 still carries no traffic channels, and is available to perform verification as required.

Accordingly, timeslots 2 and 3 are uplink-timeslots allocated to DVC1 and DVC2 for communicating with base station (TRX1) and timeslot 1 is a downlink-timeslot for communicates control information from base station (TRX1). The communication links are unidirectional telecommunication links. It is understood that in the TDD mode a timeslot may be allocated to transmissions by either the base station (downlink) or a mobile user (uplink). For a bidirectional telecommunication link, a pair of timeslots of the TDMA frame, one uplink-timeslot and one downlink-timeslot is allocated for a communication between base station and mobile device. Backstrom does not teach timeslots are allocated in pair for a bidirectional communications. Therefore, Backstrom clearly teaches a unidirectional telecommunication link.

Examiner believes Backstrom discloses the step of configuring the given device (Base station, FIG. 1) such that in a particular mode of operation (Verification mode) the master radio (VER/TRX4) only receives data ("the VER/TRX4 tunes its receiver to the frequency used by the mobile and searches for the digital voice channel colour code, or DVCC. Strength measurements are then used by the base station controller 14 to make the required verification") and the one or more slave radios (TRX1) only transmit data (Transmit control information to mobiles during timeslot-1). Examiner respectfully believes Backstrom discloses and/or render obvious all the claimed limitations (claims 1-7 and 13-20). Therefore, the rejection stands.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-6, 13, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Backstrom (US 6,147,983).

Regarding claims 1, 6, 13, 17, 18 and 19-20, Backstrom discloses a communication system, an apparatus and method for use in a wireless network comprising at least one user device for communication with at least one access point device, wherein at least a given one of the user device and the access point device comprise a plurality of radios, (FIG. 1), the method comprising the steps of:

designating one of the plurality of radios (4, 6, 8, 10 of FIG. 1) of the given device (FIG. 1) as a master radio (VER/TRX4 10) and one or more of the remaining radios of the given device as slave radios.

configuring the given device such that in a particular mode of operation the master radio only transmits data and the one or more slave radios only receive data or the master radio only receives data and the one or more slave radios only transmit data (**Col. 2, line 25-67**). According to col. 2, lines 25-40, Backstrom teaches the base station includes four transceiver 4, 6, 7, 10 each of the transceivers 4, 6, 8 and 10 are used for traffic channels, and for the digital control channel. In one embodiment, each

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transceiver device operates on a respective different frequency, therefore each transceiver be able to transmits and receives independently. In other words, the master radio only transmits data and one or more slave radios only receives data or the master radio only receives data and one or more slave radio only transmits data.

Regarding claim 2, Backstrom discloses wherein the plurality of radios is configured in parallel to one another (**see figure 1**).

Regarding claim 3, Backstrom discloses wherein the plurality of radios are controlled by a common controller (**Base station controller 14**).

Regarding claim 5, wherein the given device comprises the access point device (**"A base station", abstract**).

Regarding claim 6, wherein the given device comprises the access point device (**FIG. 1**).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Backstrom (US 6,147,983) in view of Coan (US 2004/0198421 A1).

Regarding claims 4, and 14-15, Backstrom disclose a multi-radio base station. Backstrom does not teach a multi-radio terminal. Coan, in the same field of endeavor, teaches a multi-radio terminal, where each of the plurality of radio is operative to establish a separate and independent connection with one or more access points. (see Multi-Radio terminal 120 of FIG. 1). It would have been obvious to those having ordinary skill in the art to implement a multi-radio terminals, such as taught by Coan for use in a wireless network of Backstrom, to reduce hardware cost of using multiple separated terminals.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Backstrom (US 6,147,983) in view of Hamilton et al (US 6,496,499 B1).

Regarding claim 7, Backstrom does not teach wherein each of the plurality of radios of the given device is compatible with at least one of the 802.11 a standard, the 802.11b standard and the 802.11g standard.

Hamilton et al in the same field of endeavor, teach (**"In one embodiment, the transmission between the mobile device 103 and the access points 102 is controlled according to a standard transmission and hand-off protocol (e.g., the IEEE 802.11 standard, col. 5 line 5-10).**

The IEEE 802.11 standard is the most common standard for wireless local area networks (wireless LANs), as established by the Institute of Electrical and Electronic Engineers (IEEE). The IEEE 802.11 standard for wireless LANs specifies an “over the air” interface between a wireless client and a base station, as well as among wireless clients. First conceived in 1990, the IEEE 802.11 standard has undergone six drafts, and the final draft was approved on Jun. 26, 1997. Now that IEEE 802.11 has become finalized, the incompatibility of the TDMA-based schemes with this standard will continue to become ever more significant.

It would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the given device in Backstrom using well known standard protocol, such as that suggests by Hamilton et al, in Backstrom.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Backstrom (US 6,147,983) in view of Haartsen (US 6,650,630 B1).

Regarding claim 16, Backstrom does not teach wherein the given device comprises a user device which in the particular mode of operation communicates in a half-duplex.

Haartsen teaches a multi-radio base station communication with the mobile stations in half-duplex communication mode.

It would have been obvious to one having ordinary skill in the art to implement the multi-radios base station in half duplex communication mode, such as taught by Haartsen.

Allowable Subject Matter

9. Claims 8-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior arts made of record fails to teach in combination wherein the given device is operable in at least one additional mode of operation in which data to be transmitted is separated into portions, with certain portions being transmitted by the master radio and other portions being transmitted by the slave radios.

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild, can be reached on (571) 272-2092.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

September 20, 2008

/Brenda Pham/

Primary Examiner, Art Unit 2616

<div>Application Number</div> <div></div>	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/630,405	KALISH, ALEXANDER E.	
	Examiner	Art Unit	
	BRENDA PHAM	2616	